# MANUFACTURING EXTENSION PARTNERSHIP Success Stories from the Field

# **Stored Energy Systems**

**Colorado Association for Manufacturing and Technology** 

Stored Energy Systems Doubles Capacity to Meet Growth

#### **Client Profile:**

Stored Energy Systems (SENS) of Longmont, Colorado manufactures and distributes highly reliable industrial battery chargers and DC power systems for applications and equipment that require continuous power at all times. SENS products provide the essential power its clients need in the event of black outs, poor power quality or to 'peak shave' when utility-provided energy prices are high. SENS commands a majority of the market share in the engine generator set battery charger industry in North America and is one of the leading providers of chargers and DC systems to the utility and industrial control sectors. The company employs 35 people.

## Situation:

In the 1990s, SENS embraced Lean to meet the challenge of customer demand for quick on-time delivery of products. Fully committed to Lean, SENS reduced lead time from over six weeks to less than one week, and decreased inventory to, "radically improve service to customers and reduce cash invested in inventory," said Doug Kaewert, Chief Operating Officer of SENS. This commitment to Lean gave SENS the structure and capacity to expand rapidly. Throughout much of the 2000s, SENS has seen over 20 percent annual growth. SENS contracted with the Colorado Association for Manufacturing and Technology (CAMT), a NIST MEP network affiliate, to conduct Kaizen events, or Rapid Improvement Blitzes, to allow the company to flexibly scale their production to meet rapidly expanding customer demand.

#### Solution:

When the economic downturn hit, SENS experienced radical and unpredictable weekly swings in the number and mix of product orders. The downturn negated the immediate need to scale up production, but the Kaizen events proved to be a significant benefit in dealing with the unpredictable swings in volume and mix. CAMT's Kaizen events restructured two primary product lines with the goal to increase throughput with less physical space and reduce assembly/test cycle time. The placement of materials and equipment were changed to eliminate non-value added activities and ensure rapid flow of product to customers. Stations were rearranged so that anywhere from two to six workers could work on one line, enabling SENS to scale production to the current demand of that product. This, coupled with a cross-trained workforce, is providing a highly flexible workplace that can meet unpredictable spikes in demand and changes in product mix. The level of understanding of their processes gained through the Kaizen events, in addition to the compressed size of the lines, has enabled SENS to more than double production when needed. With CAMT's help, SENS further reduced large charger lead times from 2.5 days to 1 day, and decreased the space needed for their product lines by 50 percent.

### Results:



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- \* Increased production by 200 percent. \* Realized \$10,000 in cost savings.
- \* Reduced floor space by 50 percent.
- \* Reduced lead time from 2.5 days to 1 day.
  \* Invested \$31,380 in workforce development.

## **Testimonial:**

"CAMT's Kaizen events have helped SENS prepare to meet our future growth." Doug Kaewert, Chief Operating Officer

